
REPORT BY THE U.S.

General Accounting Office

Description Of Selected Nonfederal Job Evaluation Systems

This report describes: (1) job evaluation systems in the states of Connecticut and Idaho, the Salt River project public utility in Arizona, and JByrons Department Stores in Florida; (2) how job evaluation played a role in the issue of comparable worth in the states of Washington and Minnesota, and in San Jose, California; and (3) the development of a job evaluation system at American Telephone and Telegraph. The report illustrates various ways in which jobs may be classified and paid.



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UNITED STATES GENERAL ACCOUNTING OFFICE
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GENERAL GOVERNMENT
DIVISION

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The Honorable Patricia Schroeder
Chairwoman, Subcommittee on Civil Service
Committee on Post Office and Civil Service
House of Representatives

The Honorable Mary Rose Oakar
Chair, Subcommittee on Compensation
and Employee Benefits
Committee on Post Office and Civil Service
House of Representatives

The Honorable Gary Ackerman
Chairman, Subcommittee on Human Resources
Committee on Post Office and Civil Service
House of Representatives

This report responds to your request for a description of how job evaluation is conducted and used to set pay in selected nonfederal organizations. It complements three earlier reports that discuss job evaluation and pay equity in the federal sector.¹ Job evaluation is a formal procedure for hierarchically ordering a set of jobs in terms of their value or worth to an employer, usually in order to establish pay rates. You asked that we describe these systems to illustrate various ways in which jobs may be classified and paid.

This report discusses job evaluation methods in the states of Connecticut and Idaho, the Salt River Project (a public utility) in Arizona, and JByrons department stores in Florida. In addition, the report includes descriptions of how job evaluation played a role in the comparable worth issue in the states of Washington and Minnesota, and in the city of San Jose,

¹Description of Selected Systems for Classifying Federal Civilian Positions and Personnel (GAO/GGD-84-90, July 13, 1984); Distribution of Male and Female Employees in Four Federal Classification Systems (GAO/GGD-85-20, Nov. 27, 1984); and Options for Conducting a Pay Equity Study of Federal Pay and Classification Systems (GAO/GGD-85-37, Mar. 1, 1985).

California. It also discusses the development of and attempts to implement a new job evaluation system at the American Telephone and Telegraph Company (AT&T).

COMPONENTS OF POINT-FACTOR JOB
EVALUATION SYSTEMS

Although each job evaluation system discussed in this report has some unique features, they are all examples of the point-factor evaluation methodology.² Point-factor systems, as well as other evaluation methodologies, have three basic components--job analysis, job evaluation, and pay adjustment.

In job analysis, the duties, tasks, requirements, working conditions, and other job aspects are described. As a result of this process, (1) a written job description is developed, identifying the important features of each job, and (2) job specifications or qualifications are developed, indicating the knowledge, skills, and ability required to perform the job.

Each job is then evaluated on its "worth" or "value" to the employer using the point-factor methodology. In this method, particular job elements or factors are selected and defined which the employer believes are compensable--i.e., factors for which the employer pays money. Four general types of factors are commonly used: skill, effort, responsibility, and working conditions. Each factor receives a different weight or number of possible points depending on its perceived importance to the worth of the jobs in question, and each factor may be further subdivided into subfactors. Each job is evaluated on each factor and subfactor and the total number of points on all factors represents the job's evaluated worth.

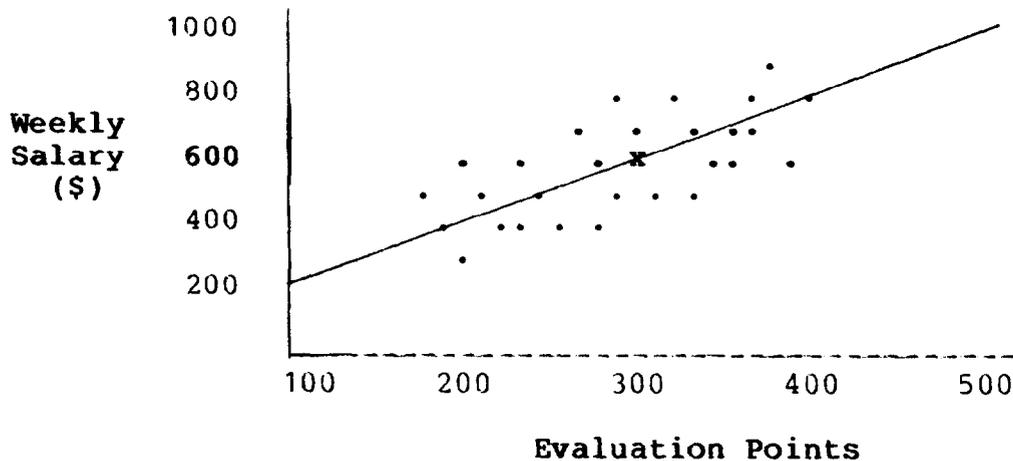
Most point-factor evaluation systems may be classified as "a priori" or "policy-capturing." In a priori systems, factors and factor weights believed relevant to the organization are specified in advance of the evaluation process and the results are commonly tied to the relevant labor market. In policy-capturing systems, factors and weights are analytically developed as part of the evaluation process to replicate the organization's existing pay system. The evaluation systems in Connecticut, Idaho, Washington, Minnesota, San Jose, and AT&T

²The four basic methods of evaluating jobs are ranking, grade description, point-factor, and factor comparison. The first two methods are known as "whole job" evaluation techniques and the last two are "factor based" methods. Each is described in Description of Selected Systems for Classifying Federal Civilian Positions and Personnel (GAO/GGD-84-90, July 13, 1984).

described in the appendixes are a priori systems. The evaluation system in use at the Salt River Project is an example of a policy-capturing system. In the system in use at JByrons, the factors are specified in advance of the evaluation process and the results are tied to the labor market. However, the factor weights are developed as part of the evaluation process.

The final step in the process is usually pay adjustment, in which the evaluation results are used in setting wage or salary rates. Other considerations in this step may include information on area wage rates for similar jobs, collective bargaining agreements, company policy decisions, and existing salary ranges. In systems where external salary competitiveness is a goal, the organization may collect information through wage surveys to determine what other organizations are paying for similar levels of work. Jobs representing the organization's pay range on which survey data is collected are commonly called "key" or "benchmark" jobs.

The salary information can then be plotted on a graph with the evaluation data for each benchmark job, with each job represented by a point. The resultant distribution of points is known as a scattergram or scatter diagram. Then, a line which is approximately equidistant from all points in the scattergram is either calculated through regression analysis³ or estimated. The resultant pay line can then be used to set pay for all jobs in the organization based on their evaluation score. For example, according to the pay line in the figure below, a job that is evaluated at 300 points should be paid \$600 a week.



³Regression analysis is a statistical technique used to determine the relationship between a dependent variable (in this case, pay) and a set of independent variables (in this case, evaluation scores).

OBJECTIVES, SCOPE, AND METHODOLOGY

Through letters from the chairpersons and discussions with representatives of the House Post Office and Civil Service Subcommittees on Compensation and Employee Benefits, Human Resources, and Civil Service, we were asked to describe a variety of nonfederal job evaluation systems. The systems described in this report were selected based on reviews of relevant literature, discussions with professionals in the field, and a telephone survey of nonfederal organizations.

Our literature search identified studies of evaluation systems which were innovative or had focused on sex bias. We also solicited suggestions from groups such as the National Committee on Pay Equity, the Equal Employment Advisory Council, the National Organization for Women, the American Society for Personnel Administration, and the American Compensation Association. We requested that they identify organizations they believed had innovative job evaluation systems or systems which were designed to achieve comparable worth. A total of 34 organizations were identified: 17 states, 5 local governments, and 12 private sector organizations. We surveyed these locations by telephone to gather information on the number of evaluation systems in the organization, the occupations covered, the type of system used, and other considerations. The final eight sites were chosen based on whether their evaluation system

- was already in place;
- covered most employees in the organization;
- cut across a variety of occupational groups; and
- had some unique feature or was illustrative of other systems.

Our work, which was conducted between April 1984 and April 1985, included

- interviewing officials responsible for developing and administering the systems;
- reviewing relevant, available policy and procedure manuals;
- examining relevant research literature; and
- sending a draft of each section to appropriate organization officials for their review and comment.

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As requested by your offices, we neither reviewed how these systems are operating nor assessed their relative merits. Also, as arranged, unless the contents of this report are publicly announced earlier, we plan no further distribution until 10 days from the date of this report. At that time, we will send copies to interested parties and make copies available to others upon request.

W. J. Anderson

William J. Anderson
Director

STATE OF IDAHO

Idaho uses a factor-based system developed by Hay Associates to evaluate positions held by all of its classified blue- and white-collar employees in approximately 1,100 job classes. The system, first used in 1977, was adopted to achieve internal equity in compensation--i.e., the more highly valued a job, the higher it is graded and, therefore, paid.

BACKGROUND

Positions in Idaho state government are either classified or nonclassified (referred to in Idaho as "exempt"). Our review focused on the system used to evaluate positions held by the 8,460 classified employees in the state as of January 1984 (53 percent of all state employees). Positions held by most non-classified employees (elected officials, state university and college faculty, political appointees, etc.) are not paid based on the Hay job evaluation system, although they normally receive the same salary increase as classified employees.

The Idaho Personnel Commission has been responsible for the classified personnel system since 1967. It is overseen by the Idaho Legislative Council, which is composed of the leadership of both houses of the state legislature. No standardized classification system was used in the state until the adoption of the new system in 1977. Authority to set pay was also fragmented, with the commission's role primarily one of consultation with state agencies in working towards a classification system. This lack of standardization and fragmentation resulted in multiple job levels within each job class, arbitrary job qualifications, and other pay and classification problems. By 1971, the Commission believed an entirely new system was needed that could ensure equity to employees and management control. This system was ultimately implemented in 1977.

To develop the system, the Legislative Council created an 18-member Committee on the Personnel System in 1974 to review the state's pay and classification system. The committee, made up of legislators, department heads, and business leaders, concluded the compensation area needed improvement. They then contracted with Hay Associates, a management consulting firm, for a 6-month study

"to develop a salary plan that provided internal equity for all classified state employees, and externally provide the salary posture needed to compete in the market place in attracting and retaining qualified employees."

In May 1975, 3 Hay employees trained 15 state employees on the Hay method of job evaluation. These employees were then divided into three committees, each of which evaluated a different group of occupations. The consultants provided guidance to each of the three committees in conducting the evaluations.

The committees first evaluated a group of 300 benchmark job classes, and then the consultant evaluated the remaining 800 classes using the benchmarks as guides. The July 1975 Hay report based on these evaluations was controversial in that it challenged existing hierarchical and headquarters/field relationships. The Commission believed the Hay evaluation methodology was valuable, however, and obtained permission from the Legislative Council to revise the report. The Council appointed a committee to oversee the effort, composed of seven legislators, seven department heads, and the president of the Idaho Employees Association. The Commission selected and trained about 50 employees representing various occupations and backgrounds to reevaluate 525 job classes identified by agency heads as possibly being misevaluated in the 1975 Hay study. Three committees, each with five members drawn from the pool of 50 employees on a rotating basis, examined the 525 classes. If the committees could not resolve whether or not the jobs were evaluated properly, the Commission examined and made recommendations for resolution. The committees again relied on existing job descriptions, but obtained from agency officials any additional information needed to evaluate the job. The relative rankings of nearly all of the 525 classes were changed as a result of these reevaluations.

In January 1976, the Commission sent a revised report that included the original Hay report with the reevaluations of the 525 classes to the 15-member overview committee. The committee subsequently approved the report and sent it to the state legislature. In March 1976, the legislature passed a statute that required the Commission

"to determine the relative worth of each job classification established . . . and, in making such determination . . . utilize a job profile system similar in content and method to the guide chart profile method developed by Hay Associates."

The Commission deferred implementation of the system until July 1, 1977, and instituted an evaluation appeal process. From July 1, 1976, to December 31, 1976, 212 formal appeals of job classifications were received. To resolve the appeals and to

conduct any future evaluations a permanent committee consisting of three Commission employees--the deputy director, the chief of compensation, and the compensation specialist--was established.¹

Resolution of many of these appeals affected other job classes as well, so that approximately one-half of the state's 1,100 job classes were studied over the next 2 years. Implementation of the Hay system began in July 1977 and was completed in 1982.

COMPONENTS OF IDAHO'S JOB EVALUATION SYSTEM

Idaho's job evaluation system includes the three basic components found in most job evaluation systems: (1) job analysis, (2) job evaluation, and (3) pay adjustment. Idaho uses the Hay methodology in job evaluation and pay adjustment, but uses its own methodology to analyze the jobs. Although Idaho law requires the personnel commission to analyze and evaluate the state's classification plan at least every 2 years, they have limited their review to about 300 job classes per year because of insufficient staff.

Job analysis

In Idaho, job analysis begins with job incumbents completing a job questionnaire describing what they do and how much time is spent performing various types of work. The supervisors review the incumbents' responses to the questionnaire and, if a position is unoccupied, the supervisor completes the questionnaire. About half of the questionnaires are not adequately completed, and are supplemented with followup interviews and observations.

An analyst from the Commission then prepares a job analysis summary based on the gathered information. The summary describes the work related to two of the evaluation factors ("know-how" and "problem solving"); information on the other two factors ("accountability" and "working conditions") is obtained during the evaluation process. The summary is discussed with the employee and the supervisor, and approved by the department

¹The permanent committee was established to provide continuity and consistency not available with rotating committee members. The three-member committee was expanded to five members in 1980 in order to bring two representatives from the agencies into the process. However, agency representatives generally do not evaluate jobs from their own agency.

or agency with jurisdiction over the position. Finally, Commission staff establish the final classification of the job based on the summary, with the agency approving the job specifications.

Job evaluation

The information collected about a job is then used to assign some measure of worth or value to the position in the job evaluation phase. The Hay Guide Chart-Profile Method provides specific techniques for evaluating positions on the basis of a set of factors believed common to all jobs. Guide charts are used to assign numerical values (points) to each of the factors. The worth of the job is reflected by the number of points assigned to it.

In the standard Hay methodology, points are assigned for the following four factors and subfactors:

Factor 1		Know-How
Subfactor	a	Depth of knowledge
Subfactor	b	Managerial breadth
Subfactor	c	Human relations skills
Factor 2		Problem Solving
Subfactor	a	Thinking environment
Subfactor	b	Thinking challenge
Factor 3		Accountability
Subfactor	a	Freedom to act
Subfactor	b	Job impact on end results
Subfactor	c	Magnitude
Factor 4		Working Conditions
Subfactor	a	Physical effort
Subfactor	b	Environment
Subfactor	c	Hazards

The factors, subfactors, weights, and guide charts used in Idaho are the same as those in the standard Hay system except that the "working conditions" factor is tailored to Idaho's needs. The Commission decided to permit points for working conditions only for certain hazardous jobs (subfactor c), and even then the factor is not heavily weighted. Points for factors 1 through 3 comprise the total points for most jobs.

In Idaho, job evaluations are normally conducted by the permanent evaluation committee within 2 weeks of the job analysis, using all of the information from the job analysis phase

and other information such as job specifications, an organizational chart showing where the job is located, and a supplemental evaluation data sheet. Evaluation committee members independently consider this information along with the guide charts to evaluate the benchmark jobs on each factor. The committee then meets formally with agency officials knowledgeable about the job being evaluated or observes the performance of the job. Committee members then discuss each member's scores until they reach a consensus. The Commission director said that individual scores usually do not vary significantly when all committee members have been adequately trained.

Once the evaluation committee has assigned points, the Commission director advises the agency head of its decision. All decisions of the director may be appealed by the heads of agencies, although the employee has no direct appeal rights. However, few appeals have been made since the system was implemented. The director said he believed this was because agencies have many opportunities to express their opinions before the final decision is made.

Pay adjustment

In order to adjust pay in accordance with the desired evaluation scores, prevailing wage rates for certain benchmark jobs are first identified using salary surveys. Two market surveys are conducted for two generally different classes of employees: (1) an in-state survey for those positions for which the state competes with other employers within the state and (2) a western state² survey for positions the state must usually fill from outside of Idaho. The classes selected as benchmarks are intended to be representative of the range of salaries in the state and used by other employees in the market being surveyed. In 1983, data was gathered on 53 benchmarks for the in-state survey and 57 benchmarks for the western state survey.

The salaries for surveyed positions are averaged and, along with their point values, plotted on a dollars/points graph. Using statistical techniques, two lines of best fit (pay lines) are drawn. Idaho uses two pay lines--one for jobs up to and including 320 points and another for jobs over 320 points.

Salaries for Idaho positions are derived by referring to a position on the pay line corresponding to the number of evaluation points for each job. Jobs paid below the line are moved up

²For this survey, Idaho collects data from Washington, Oregon, Montana, Wyoming, Utah, Arizona, Colorado, New Mexico, and Nevada.

to the line; those above the line are allowed only in cases of extreme recruitment difficulty, and are called "pay line exceptions." These pay line exceptions are rare (less than 1 percent of all classified jobs are involved), but can cause equally evaluated jobs to be paid differently. The Commission annually reviews the need for continuing all pay line exceptions. Most pay adjustments are upward. For example, in the first year of implementation, clerical jobs received increases of up to 30 percent resulting in salaries above the market but on the general pay line.

The state's compensation schedule was recommended by Hay Associates, and has 49 pay grades, each with 7 steps. Movement across each pay grade is based solely on merit. Employees can also receive longevity pay increases based on their years of service. Placement of a job within a particular grade, however, is generally determined by the job's evaluated worth. Thus, two jobs which are equally evaluated will be assigned to the same grade, although incumbents of those positions may receive somewhat different salaries due to merit or longevity differences.

STATE OF CONNECTICUT

The State of Connecticut employs a multifaceted approach to salary administration. Historically, a number of different job evaluation systems have been utilized, including a whole job system which is still partially in use. Job evaluation data, including data from an a priori point-factor system, is combined with labor market factors and recruitment/retention considerations in determining pay rates and relationships. For approximately 95% of state jobs which are covered by collective bargaining, the information generated through these approaches is then used as a basis for negotiating final salaries.

BACKGROUND

Connecticut had approximately 45,000 full-time employees in its Executive Branch as of May 1985. This appendix deals with a job evaluation process affecting approximately 36,600 blue- and white-collar employees in the classified service. These employees work in 40 general occupational groups composed of 2,550 job classes. Those covered by collective bargaining are represented by 10 bargaining units.

The State Personnel Division, within the Department of Administrative Service, has primary responsibility for job classification, compensation, and contract negotiation for all covered employees in the Executive Branch, except for faculty and non-faculty professionals of higher education. Within the Division there is an Objective Job Evaluation Unit (OJE) which is responsible for evaluation studies. Other organizational entities in the Personnel Division then use the evaluation as a factor in salary administration.

Section 5-200(a) of the Connecticut General Statutes requires an objective evaluation of all job classifications in the classified service. It stipulates that the classification system first be reviewed and, if necessary, revised. Then, the classes are to be evaluated on the basis of "objective, job-related criteria," which include, but are not limited to, (1) knowledge and skills, (2) mental and physical effort, and (3) accountability. These ratings may be a factor in setting salaries and are subject to collective bargaining.

GENERAL APPROACH

Overall program management for OJE is provided by staff of the State Personnel Division with input from an advisory committee. The advisory committee was established by the State's

Director of Personnel and Labor Relations to provide input and includes representatives from the legislature, employee unions, the state management administration, the private sector, and the Permanent Commission on the Status of Women (PCSW).¹

The process of evaluation follows the approach described in legislation, namely revision of the classification structure followed by committee evaluation. The evaluation results may then be used as a factor in setting salaries.

All jobs are rated by a committee evaluation process. Two types of committees exist, a Master Evaluation Committee and Evaluation Subcommittees. The Master Evaluation Committee is responsible for evaluating 350 benchmark job classes, for providing a quality control review of other ratings, and for resolving problems. It is comprised of a diverse group of managers and employees who were selected on the basis of general ability and availability.

The evaluation of 350 benchmarks provides a frame of reference for all other evaluations. These benchmarks, which were selected at the onset of the study by the Personnel Division were completed prior to the classification review and evaluation of the various occupational groups. They were chosen according to the following criteria: 1) represent all job families and bargaining units involved; 2) reflect the positions used by the state to establish internal and external pay relationships; 3) absence of classification problems; and 4) provide complete hierarchy of at least one job series in each occupational area.

The balance of state classified jobs are studied by sub-evaluation committees structured around the various job families. These committees generally consist of two managers, two bargaining unit employees, and an OJE representative. Consultants are used in an advisory capacity to assist the subcommittees, but do not actually evaluate jobs.

Job analysis and classification

All technical classification studies are conducted by Personnel Division staff who make decisions on refinement of the structure and content of class specifications prior to evaluation. Jobs are studied on an occupational group basis. In some instances major changes are proposed such as consolidating

¹PCSW is a bipartisan body created in 1973 by the Connecticut legislature which works to investigate and publicize a variety of women's issues.

existing classes into single generic classes or changing the criteria which govern the manner in which classes are used. Conversely, other classes may only require minor wording changes.

Job analysis is the first step in the process. Data on jobs is obtained primarily through the use of a comprehensive job analysis questionnaire which collects information on all aspects of the jobs. It is completed by employees and reviewed by supervisors who may comment on but not change the content of employees' responses. For smaller classes all filled positions are studied, while the larger classes are reviewed on a sampling basis. The resulting information is supplemented by other input such as class history files, existing class specifications, organization charts, central office and agency heads, and employee organizations.

Evaluation committees work primarily from a single job analysis questionnaire selected as being most representative of the class at large. It is necessary sometimes for OJE staff to prepare a composite questionnaire if a broad range of duties is involved or if there are major classification changes. Additional information may be provided in the form of written documentation such as organization charts and/or through oral presentations by various parties such as supervisors, employees, or Personnel Analysts.

Job evaluation

Although other evaluation systems are currently used in the state, the Objective Job Evaluation Unit utilizes an a priori point-factor job evaluation system. All jobs are rated on three major factors, with the assumption being that they are discrete and apply to all jobs. These factors are: 1) knowledge and skills, 2) mental demands, and 3) accountability. A fourth factor, working conditions, only applies in selected cases. Each factor is described as follows:

1. Knowledge and Skills: This component encompasses the total amount of understanding, familiarity with facts or information, dexterity and aptitude necessary to perform the job in a satisfactory manner. The component contains three dimensions or subfactors:
 - Job Knowledge - what the position incumbent must know or know how to do to perform satisfactorily.
 - Managerial Skills - the degree to which the elements of management must be practiced in coordinating activities, functions, and subfunctions.

- Interpersonal Communication Skills - direct contact skills and relationships with people within and outside the organization.
2. Mental Demands: This component of the evaluation system measures the level and nature of thinking required of the position in analyzing and evaluating alternative solutions. It is represented by the following components:
- The latitude permitted for independent judgment.
 - The extent and nature of the job's problem-solving requirements.
3. Accountability: This is the position's overall contribution toward the organization's desired end results. It has three parts:
- Freedom to Take Action - the extent of restraint under which the job must operate. Limitation can be in the form of necessary supervision or direction, or can be inherent in the nature of the position.
 - Size of the Job's Impact on End Results - the general size most representative of the job's scope.
 - Nature of the Job's Impact-
 - °Direct - principal actions, at the position's organizational level, are taken in achieving results.
 - °Supportive - services are afforded or actions taken that influence, rather than control, results.
 - °Nondirect - services afforded are incidental or collateral in nature.
4. Working Conditions: Included are the physical conditions imposed upon the position incumbent.
- Physical Effort - The amount of physical energy expended in lifting, climbing, and working in tiring positions.
 - Hazards - The danger of injury or probability of physical harm associated with the job.

--Discomfort - The environmental conditions to which the incumbent is exposed while on the job. These include, but are not limited to such things as cold, wind, dust, rain, or snow, fumes, and dirt.

Each job is then assigned to a level for each of the sub-factors. This provides a profile for which there are three numerical values (high, middle, and low) on a guide chart similar to that used in the Hay system. The evaluator then decides whether there is a pull in the high or low direction and a corresponding number is chosen.

This process is carried out for the three major factors and for working conditions, if applicable. A final total point value is thus derived for each job.

Paysetting

Paysetting in the state of Connecticut is a multi-faceted process, involving such features as across-the-board increases and internal alignments of pay within occupational groups. Although job evaluation results are not required to be used in the paysetting process, they have been used in some negotiations as an element in collective bargaining, and as a guide in making inequity adjustments within some occupational groups.

The particular methods by which job evaluation results are incorporated into those negotiations have not been formalized. As a contributing factor in the first negotiations involving paraprofessional health care workers, a method was tried of statistically analyzing the evaluation data to determine relationships among job classes. This procedure is not currently being used, and new procedures are currently under review.

PROJECT STATUS

State statute requires that up to 700 jobs be evaluated each year. The Personnel Division is operating within this framework, utilizing appropriated resources. Salary administration continues to incorporate all of the elements described in the introductory paragraph and as jobs are evaluated, OJE ratings may be considered.

As of May 1985 approximately 2,025 classes have been surveyed, i.e., incumbents have been requested to complete questionnaires. Of these, approximately 650 classes have been evaluated. Taking into account resource limitations and unanticipated staff turnover, evaluation of all jobs in the state classified series is targeted for completion in 1987.

THE SALT RIVER PROJECT

The Salt River Project (SRP), a public utility located in Phoenix, Arizona, developed two computer-based, point-factor job evaluation systems to evaluate salaried positions. The systems were designed to reduce subjectivity in evaluating positions, and attempt to quantify the company's job value policy. They are also examples of policy-capturing systems. A separate system is used to evaluate blue-collar positions.

BACKGROUND

SRP has about 5,000 employees who are divided into four categories for job evaluation. Until the 1970s, three factor comparison¹ classification systems were used, in which a committee used narrative position descriptions to assign grade levels. These systems were replaced between 1974 and 1976 by the Position Analysis Questionnaire (PAQ) system for all employee groups except blue-collar employees who continued to be evaluated using the factor comparison method. Two of the categories, salaried supervisory/managerial employees and salaried non-supervisory employees, are now evaluated by SRP-developed, computer-based point-factor job evaluation systems, instituted in 1980 and 1983, respectively.

Under the PAQ system, a job analyst discussed 187 items on a questionnaire with the job incumbent and supervisor. From this information, the job analyst assigned scores to each of the responses which were subsequently used in a computer model to determine the relative rank of the position. SRP viewed the PAQ system as more desirable than the factor comparison technique because it used a more structured approach in gathering job information and because it reduced some of the subjectivity associated with job ranking. Perceived disadvantages of the PAQ system were that (1) since it required extensive interviews with employees, a large personnel staff was needed to administer and maintain it; (2) it still required subjective judgment when assigning scores to questionnaire responses; and (3) the complexity of the basis for the evaluation points made it difficult to communicate the plan to supervisors and employees.

¹Factor comparison is one of four major categories of job evaluation systems. A complete description of these job evaluation categories is included in Description of Selected Systems for Classifying Federal Civilian Positions and Personnel (GAO/GGD-84-90, July 13, 1984).

In 1980, supervisory and managerial employees were removed from the PAQ system and placed under the SRP-developed Factor Analysis Calculation Technique for Supervisors (FACTS) system. Three years later, non-supervisory salaried positions were also removed from the PAQ system and evaluated using another SRP-developed system, entitled Factor Analysis Calculation Technique (FACT). The four major occupational groups are currently evaluated using four classification methods:

- (1) Salaried Supervisory/Managerial - FACTS system
- (2) Salaried non-supervisory - FACT system
- (3) Clerical - PAQ system
- (4) Unionized blue-collar - Factor comparison classification system

This appendix discusses the FACTS and FACT systems together, noting their similarities and differences. SRP management intends to eventually implement job evaluation systems similar to FACTS and FACT to cover all of its employees.

FACTOR ANALYSIS CALCULATION
TECHNIQUE SYSTEMS FOR SUPERVISORS
(FACTS) AND NON-SUPERVISORS (FACT)

According to SRP officials, the company's new job evaluation systems were designed to reduce subjectivity, to demonstrate why one job is assigned to a higher salary grade than another, and to quantify the company's policy on job values. Thus, they are examples of policy-capturing evaluation systems.

Job analysis

The job analysis process produces a short narrative job description for each job and a list of about 10 of the position's most important duties. The information is maintained on computer files, reviewed every 12 to 18 months, and updated as necessary.

Selection of factors, job
evaluation, and paysetting

Generally, different factors are used to evaluate supervisory and non-supervisory positions under the FACTS and FACT systems, respectively. The primary criterion used to select factors for supervisory jobs was the objectivity with which each factor could be measured. The factors used were job measures

compiled from data maintained by SRP, such as total budget amount for which the individual is responsible, organization level, highest grade supervised, levels of supervision reporting to the incumbent, annual budget responsibility, total employees supervised, and composition of the workforce supervised. Since the system was designed to quantify SRP's policy on job values, regression analysis was used to identify the best combination of factors which would mathematically explain the company's policy on job values.

Equally quantitative information does not exist for non-supervisory salaried personnel. Therefore, management studied and selected factors that it felt were important to the grade for these positions, such as communication skills, amount of responsibility, and amount of effort or physical exertion. These factors formed the basis for a questionnaire sent to job incumbents which requested data on the percent of time spent performing each job dimension. The results of this questionnaire were then statistically analyzed to determine the relationship between these factors and the current salary practice.

Thus, both the FACTS and FACT systems use quantitative measures to evaluate jobs. Although the sources of the quantitative data and the factors for supervisors and non-supervisors were different, the same overall analytical process and software package were applied in both evaluation systems.

Factors used in FACTS for supervisory positions include: education, analytical ability, organizational level, levels of supervision reporting to the incumbent, number of supervisors directed, total budget amount for which the individual is responsible, level to which the job reports, and annual budget responsibility. Factors in FACT for non-supervisory positions include: communication with others; preparing, analyzing, handling of various types of information; operation of equipment; required skills; amount of responsibility; amount of physical exertion; and working conditions.

Job grades resulting from mathematical calculations are converted to pay on a standard pay scale for all non-union employees. Although deviations can be made, generally the calculated grade is adopted by management. According to an SRP official the results of the new systems (1) did not substantially affect aggregate payroll costs and (2) improved employees' understanding of their job grades. Under the systems, about 15 to 20 percent of the positions changed

grade. If the changed grades resulted in the individual salary falling below the minimum dollar amount for the grade, a salary adjustment was made. However, if the current salary of the individual was above the minimum of the new grade, no immediate salary adjustment was given.

JBYRONS DEPARTMENT STORES

JByrons is a chain of department stores with headquarters in Miami, Florida, and over 60 stores throughout the state. Since 1978, JByrons' management has dedicated itself to a job evaluation system that would achieve pay equity and bias-free compensation.

BACKGROUND

As of August 1984, JByrons had 4,168 employees in 330 occupations, nearly two-thirds of whom worked only part-time. The employees were organized into three major categories: (1) 3,156 store employees, (2) 460 distribution center workers, and (3) 552 employees in the headquarters office. Most of the employees were in either white-collar or clerical occupations, with very few professional or blue-collar workers. Of the total number of employees, 3,148 were women and 1,020 were men. Several of the company's occupations were male- or female-dominated. For example, of the 1,663 salespersons, 1,509 (91 percent) were women.

The Human Resources department, one of five major departments, includes the Personnel Administration Division which, under the compensation manager, is responsible for job evaluation and paysetting. Evaluation and paysetting policies are outlined in the company's wage and salary manual.

Job evaluations were not conducted at JByrons until the current system began to be implemented in 1979. Although market surveys were conducted and generally used to adjust wages, formal compensation policies or procedures had not been established.

In 1978, company officers decided that the company needed to improve its salary administration practices, particularly with regard to women and minorities. They especially believed a job evaluation system was needed to determine more objectively the worth of the company's positions. The new compensation program was intended to achieve (1) internally equitable wages--that is, equal compensation for equal skill, effort, responsibility, and working conditions; (2) competitiveness in the labor market; (3) equal compensation without regard to sex, race, or other non-work related divisions; and (4) individual pay progression based on merit.

The Brennan, Thomsen Associates consulting firm was retained to develop and help implement the new evaluation system which covers all employees below the level of vice-president. According to the consultant and the compensation manager, the principal attributes of the system are (1) it was developed for the organization, and was not a "canned" system with pre-set factors and weights; (2) the factor weights were developed using computerized statistical analysis intended to eliminate bias; and (3) the system was tested before application.

One of the goals of the job evaluation system was the achievement of pay equity and bias-free compensation. According to the compensation manager, to attain this goal employees participate in describing their jobs, one evaluation system is used for all employees, and statistical analysis of the factors and weights is performed to reduce bias. Each of these aspects is discussed in the next section.

The consultant noted that this system has resulted in many female-dominated jobs at JByrons being paid more than competitive market levels. The primary reason for this is that factors applied to female-dominated positions were given higher point and dollar values than the competitive market suggests.

Development of the evaluation system began in 1979 and the first jobs were evaluated in 1980. JByrons management decided the entire process would be reviewed every 3 years, so new evaluations were conducted in 1983. The evaluations were first used for making pay adjustments in 1981 for hourly employees and in 1984 for salaried employees.

COMPONENTS OF JBYRONS' JOB EVALUATION PLAN

Like other systems described in this report, JByrons' evaluation plan may be described in terms of three components--job analysis, job evaluation, and pay adjustment.

Job analysis

As a first step in the evaluation process, the consultant recommended that all 330 JByrons occupations be analyzed and described. Prior to 1979, JByrons did not analyze their jobs or develop job descriptions. In 1979 and 1980, the compensation manager analyzed all 330 occupations using a questionnaire-interview approach. First, supervisors were asked to complete questionnaires describing their employees' jobs. Then, job incumbents were surveyed with similar questionnaires. The compensation manager then interviewed the supervisors and job incumbents to supplement the questionnaire data. Job descriptions were then developed based on the survey and interview information.

Since this initial effort, job descriptions have been reviewed annually and, if necessary, updated. One month before annual performance appraisals are due to be completed, the compensation manager sends each supervisor a copy of their subordinates' job descriptions. The supervisor and the job incumbent discuss the job description as part of the appraisal interview. Any additions, deletions, or changes in the job description are added to the copy and returned to the compensation manager, who then verifies the changes through reanalysis of the job. Reanalysis of jobs may also be prompted by random selection by the compensation manager.

If the analysis reveals a major change in the job description, a new job description is developed and the position is reevaluated. In addition to reanalysis of existing jobs, a job analysis must be conducted for a proposed new position before the position can be approved. Job descriptions may also be revised at any time (not just during the annual review) if the supervisor or the compensation manager believe the job duties have changed.

The compensation manager reviews and approves job descriptions drafted by job incumbents and writes all others. All final job descriptions must be signed by the job incumbent and the incumbent's supervisor, attesting that the description is accurate.

Job evaluation

A point-factor job evaluation plan closely tied to market conditions is used to determine the worth of JByrons' jobs. The evaluation process, which is used for all occupations, basically involves the following steps: (1) selection of evaluation factors, (2) selection of benchmark jobs, (3) collection of market data on the benchmarks, (4) evaluation of the benchmarks and all other jobs, (5) data analysis by the consultant, and (6) approval of the analysis results by management.

Evaluation factors are selected by JByrons management to represent the company's pay philosophy. The factors cover four broad areas: skill, effort, responsibility, and working conditions. Each factor is divided into levels defining different degrees of a particular factor. All jobs are evaluated using the same factors, thereby allowing the comparison of one job against another.

In 1980, 18 evaluation factors were chosen by the vice president of the Human Relations department and the consultant after discussing the organization's goals and compensation strategy with the company president. The factors were drawn

from a library of factors provided by the consultant. In 1983, 14 factors were chosen by the compensation manager with the approval of upper management. Some of the factors used in 1980 were reused in 1983, some were borrowed from other companies' plans, and some were developed by the compensation manager. The number of factor levels was developed by the compensation manager after consultations with supervisors and employees. The factors used in 1983 are listed below.

JByrons' 1983 Job Evaluation Factors

<u>Responsibility</u>	<u>Skill</u>
Reporting level	Knowledge and skill
Impact on company operations	Interpersonal skill
Authority	Dexterity and coordination
Dollar amount of sales	Learning period required Decision making/problem solving
<u>Effort</u>	<u>Working conditions</u>
Physical effort	Emotional demands
Mental effort	Physical surroundings
Visual effort ^a	

^a"Visual effort" was developed by the compensation manager in order to capture a job characteristic common to many female-dominated jobs. Visual effort refers to the types of visual demands required by a position, ranging from normal sight to continuous scanning.

Benchmark positions at JByrons are jobs common to the labor market, and are used to design the point-factor evaluation model for the entire company. Therefore, a diversity of positions are chosen to comprise a valid sample of company positions. In 1980, the compensation manager selected 117 jobs as benchmarks; in 1983, he chose 120 benchmarks. Thus, approximately one-third of the occupations at JByrons were selected as benchmarks in each evaluation cycle. After initial selection by the compensation manager, top management approves the list of benchmark jobs before they are used.

Once the benchmarks are selected, appropriate market data is collected and a median market salary is calculated for each benchmark. The market data represents the salaries paid by JByrons' competitors for the same positions. Different markets are surveyed depending upon the job being considered. Store managers' benchmark salaries are set using the National Retail Managers Association and the Management Compensation Services salary surveys. These surveys measure only retailers and are broken down by size, type of retailer, and geographic area. Another commercially available survey is used for finance, data processing, and personnel employees. Hourly employees' market data are derived from surveys by the Bureau of Labor Statistics, the Federal Reserve Bank, other retailers in the area, and JByrons themselves. JByrons officials said different salary surveys are used because no one source has the best data to match with their benchmarks. Although the surveys are conducted at different times during the year, all the salaries are standardized to February using common inflation indicators as the adjustments.

The actual evaluation of the jobs is conducted using information from the above process. Initial evaluation of the jobs in 1980 was done by the employees themselves using a job evaluation form. These evaluations, however, were not considered by management to be accurate, because differences between the highest and lowest paying jobs were too small (about \$80 per week difference in salary from the lowest paid job to the highest). Therefore, a third to a half of the jobs had to be reevaluated by the compensation manager. JByrons officials said the problems in the 1980 evaluations stemmed from the factors used. Some of the factor levels did not extend far enough to encompass higher-level job requirements and, as a result, the employees under-valued those jobs. Conversely, some lower-paid jobs were over-valued because of imprecise factor level descriptions and lack of control over the process. Employees tended to over-evaluate their jobs when no comparisons were available to them.

In 1983, evaluations were conducted by the compensation manager and employees' supervisors, with benchmark jobs evaluated first. A preliminary evaluation was performed using only information in the benchmarks' job descriptions. Job incumbents were then interviewed to obtain further information, from which a final ranking on each factor was derived. Interviews with the incumbents' supervisors were also conducted where necessary.

Each of the compensation manager's evaluations was then reviewed by a committee composed of individuals with a broad knowledge of functions within the company and headed by the personnel director. The committee provided insights into some

positions, and thereby helped provide more valid evaluation rankings. Approved evaluations became final, while challenged evaluations went back to the compensation manager for reanalysis. In the event of a disagreement, the committee retained final authority. The committee also provided feedback on the evaluation process to employees.

The 1983 evaluations of non-benchmark jobs were conducted after information had been received from the consultant regarding the weights and point values for each factor level. The compensation manager said he believes it is better to evaluate jobs without this information because it may bias the evaluation results. He said the 1986 reevaluations will be done all at one time (as was done in 1980) by either supervisors or employees, with oversight by the compensation manager and possibly another evaluation committee.

As a result of the evaluations, point scores were derived for each of the benchmark jobs. The point scores, the market survey data, the percent male and female, and the percent in various ethnic groups for each job were submitted to the consultant for computerized statistical analysis, which included several forms of regression analysis. According to the consultants, these procedures were chosen to derive a nondiscriminatory job evaluation plan "which provides the best combination of internal equity and external competitiveness possible for the unique needs of JByrons." The analysis is used to assign weights to each of the factors, to develop target pay levels for each of the jobs, and to test for sex and ethnic bias in each of the factors. JByrons officials said this analysis is the primary difference between their evaluation approach and that used by consulting firms.

The process of analysis is basically as follows. First, the consultant utilizes regression analysis to set preliminary weights for the factors using the benchmarks' market wage data as the dependent variable and the factor level scores as the independent variable. Each factor is then tested to see if it is associated with the sex or ethnic composition of the job incumbents. Factors which allow prediction of the sex or ethnicity of incumbents are noted and a decision is made by the consultant and the compensation manager as to whether to retain or reject the factor. That decision is based upon three criteria: (1) the degree to which the factor is predictive of the wage data for the benchmarks, (2) the objectivity of the factor, and (3) the degree to which the factor is predictive of the sex or ethnic compensation of the benchmark jobs. JByrons officials said factors which are strongly correlated with the sex or ethnicity of the position, require subjective judgment on the assignment of the factor level, and are only moderately

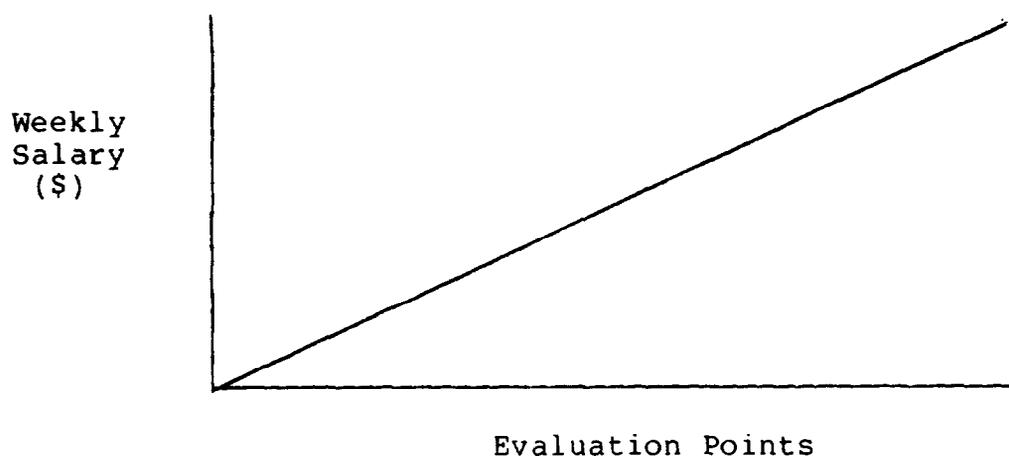
related to the wage data are discarded. In 1980, two factors were discarded because they were found to be biased against minorities and their elimination did not significantly harm the predictive ability of the evaluation system. In 1983, no factors were eliminated, although three factors (Impact on Company Operations, Authority, and Decision Making/Problem Solving) did show a barely-significant ability to predict sex. They were retained because they were strongly associated with the wage data and were considered objective.

After the preliminary factor weights were assigned and the factors tested for sex and ethnic bias, statistical tests and other adjustments were made to make the point-pay conversion more understandable to employees, and to align the factors. The results of this process was a point value for each benchmark job which represents the weekly target salary for that position. Thus, if a job has 400 points it should, according to the consultant, be paid \$400 per week.

Brennan, Thomsen also examined the accuracy of the evaluation plan before it was used at JByrons. They stated that the plan was closely related to the market but not perfectly correlated because internal equity and comparable worth considerations required some deviation from precise market rates. Any further improvement in the plan's accuracy would be, in their words, "small and extremely costly."

The final step in the evaluation process is the approval of the results by JByrons management. A pay line is plotted representing the target pay for all JByrons positions, similar to the figure below.

Sample Pay Line for JByrons



In addition to approving the results of the statistical analysis, management also establishes a competitive position relative to the target rates suggested by the consultant. Management may elect to pay more than the pay line, less than the line, or exactly as recommended. JByrons management has decided to pay 95 percent of the pay line each year since the evaluations have been conducted.

Salary schedule

JByrons uses a multi-level pay chart to set pay for its positions. Each level or grade in the pay chart is a grouping of a wide variety of jobs similar in levels of skill, effort, responsibility, and working conditions as ranked by the job's target rates. Each grade contains (1) a minimum rate, (2) a maximum rate, (3) a midpoint, and (4) an entry range. The range between the minimum and maximum rates is 30 percent of the minimum score for each level. Each grade midpoint has a 5 percent difference from the adjoining grade's midpoints. (The 5 percent grade differential was chosen because it was considered the minimum amount that would be considered meaningful by employees.) The entry range is all rates falling between and including the grade minimum and the rate equal to 95 percent of the midpoint for hourly employees and 100 percent of the midpoint for salaried employees. (The compensation manager said this difference would be eliminated in 1985.) The minimum rate for the lowest pay grade is the current federal minimum wage. The figure below presents a portion of the compensation plan as of August 1984.

Portion of JByrons' Compensation Plan Salary Grades (Weekly Salary)

<u>Grade</u>	<u>Plan minimum</u>	<u>Plan midpoint</u>	<u>Plan maximum</u>
1	134	154	176
2	142	162	184
3	148	170	194
4	156	178	204
5	164	188	214
6	172	196	224
7	180	206	236

Jobs are placed within the compensation plan based on their evaluation scores. The statistical analysis weighted the evaluation points such that each point total is comparable to a weekly earnings figure. All jobs are placed in the grade or pay level whose midpoint most closely matches the job's adjusted target rate. Thus, if a job's evaluated target rate is 186

points, it would be placed in pay grade 5 because it is closest to the grade's midpoint of 188. If the target rate is 180, the job would be placed in grade 4 as it is closer to the 178 midpoint for grade 4 than to the 188 midpoint for grade 5.

This process places the job within a particular grade. The assignment of pay within that grade for a particular job incumbent depends upon the characteristics of the individual, and is performed by that individual's supervisor. If the incumbent is new to the position and must be trained in order to fulfill the job's responsibilities, the individual's pay would be set within the entry rate. If the individual is already performing at the journeyman level for that job, he/she would be placed at the midpoint for that job's grade level. An individual could be placed above the midpoint for the job's pay level only if he/she was already functioning at the journeyman's level and was a JByrons employee or if a special pay exemption was granted by management (which is rare, according to the compensation manager).

The job evaluation scores also play a role in setting employees' annual merit increases. Each incumbent's job evaluation score is multiplied by the competitive position (e.g., 95 percent) and that figure multiplied by a pre-determined percentage increase depending upon the incumbent's job performance. For example, if an incumbent's job was evaluated at 186 points, 95 percent of that figure would be 177 points. If 5 percent of the company's payroll is to be used for merit increases, outstanding employees may receive 7 percent, fully satisfactory employees may get 5 percent and unsatisfactory employees may receive no merit increase. (These percentage increases are decided by management year to year.) If the incumbent in the above job is fully successful, the merit increase would be 5 percent of 177 or \$8.85 per week. This figure is added to the current pay rate and becomes the new pay amount from that point forward. Continuing with the above example, if the individual were being paid at the entry rate for grade 4, or \$156 per week, the salary would be adjusted to \$164.85 per week by the merit increase.

STATE OF MINNESOTA

The state of Minnesota conducted studies which identified differences in salaries between comparably valued male- and female-dominated jobs and made compensating pay adjustments to female-dominated occupations.

BACKGROUND

As of January 1985, the state of Minnesota had about 34,000 full-time employees working in more than 1,800 job classifications. About 86 percent of the employees were covered by collective bargaining agreements, which are negotiated every 2 years. Personnel matters in the state are handled by the Department of Employee Relations. Another relevant state organization is the Council on the Economic Status of Women, a legislative advisory commission established to study all matters relating to the economic status of women in Minnesota.

JOB EVALUATION AND PAY EQUITY
IN MINNESOTA STATE GOVERNMENT

Studies were conducted between 1975 and 1981 by unions, womens' groups, and the state which found differences in the earnings of male- and female-dominated occupations in Minnesota state service. All the studies concluded that women employed by the state, especially those in female-dominated classes, earned less than men. Three of the studies are highlighted below.

The Legislative Audit Commission conducted a year-long study in 1978 of the state personnel system which isolated years of education and seniority as controlled factors. The Commission found that, on the average, each incremental year of Minnesota state service was worth \$336 for a male professional and \$274 for a female professional with the same amount of education. Each educational degree or year of experience was worth \$2,339 for a male professional and \$1,841 for a female professional with the same years of service.

In 1979 the consulting firm of Hay Associates and the Department of Employee Relations implemented a study of the state personnel system, using the Hay Guide-Chart Profile job evaluation system to measure the content of jobs in state service. By 1981, the Hay system had been used by Minnesota officials to evaluate 762 of the 1,673 occupational classes then in the state, covering the majority of state employees.

In 1981, a Task Force on Pay Equity convened by the Council on the Economic Status of Women used the evaluated worth based on the Hay system and actual salaries of positions to analyze pay differences between male- and female-dominated occupational classes. This analysis indicated that two distinct pay practices were used in the state--one for female occupational classes and one for male occupational classes. The pay amounts for male classes were higher than for female classes that had been evaluated to be of equal worth.

The task force maintained that the cost of correcting pay disparities was minimal in relation to total state salary dollars. The task force estimated it would cost \$26 million to bring the salary for each female class up to the lowest salary for an equally valued male class for the 1984-85 period. This estimate represented 4 percent of Minnesota's estimated payroll for the period.

The task force recommended that the legislature establish a comparable worth policy for Minnesota state service. After the task force issued its recommendation, the Minnesota legislature changed the personnel law covering state employees in 1982 to provide "equitable compensation relationships between female-dominated, male-dominated, and balanced classes of employees in the executive branch" of state government. The law also established a procedure for making internal pay adjustments. The legislation requires that by January 1 of odd-numbered years, the Commissioner of Employee Relations must submit to the legislature a list of female- and male-dominated classes for which a pay inequity exists and an estimate of the cost of eliminating this disparity. The cost of pay equity is estimated by: calculating a salary trend line for male-dominated job classes at all points; calculating the difference between pay rates for female-dominated classes and the calculated pay for male-dominated classes at the same point level, based on the trend line; and multiplying this pay difference by the number of incumbents in the female-dominated classes. The resultant figure is the total amount needed for full salary equalization.

The 1982 legislation requires the Legislative Commission on Employee Relations to recommend an amount of funding to be appropriated for internal pay adjustments for each collective bargaining biennium to Minnesota's House Appropriations Committee and the Senate Finance Committee. The funds for internal pay adjustments must be appropriated through the usual legislative process, and are only to be used for achieving pay equity for the job classes appearing on the Commission's list.

Appropriated funds are allocated to different bargaining units proportional to the total cost of implementing pay equity for incumbents in the job classes represented by that unit. Thus, bargaining units representing underpaid female-dominated classes are appropriated an additional sum of funds for salary equalization, over and above the appropriation for general wage adjustments. The actual distribution of pay equity allocations are negotiated through the collective bargaining process, as are all salary increases. Unused salary equalization funds revert back to the state treasury.

On January 1, 1983, the Commissioner of the Employee Relations submitted the required list of underpaid female-dominated classes and estimated that approximately \$26 million would be required for full salary equalization in the 1984/1985 collective bargaining biennium. The legislature appropriated \$21.8 million for this purpose. In subsequent collective bargaining, about 9,000 employees in 157 job classes got pay equity increases. For example, non-professional health care classes, which are 71 percent female, received increases averaging \$1,630 per worker. Office and clerical classes, which are 91 percent female, received increases averaging \$1,600.

LEGISLATION FOR MINNESOTA LOCAL GOVERNMENTS

In 1984, the Minnesota legislature extended the pay equity requirements to all local governments in the state--cities, counties, and school districts. These jurisdictions employ an estimated 163,000 workers, of which about 56 percent are female.

The legislation requires all localities to establish equitable compensation relationships between female-dominated, male-dominated, and balanced classes of employees, using substantially the same definition of "equitable compensation relationships" as in the law covering state employees. It also requires the use of a job evaluation system to determine comparable work.

The legislation also includes some protections for local governments which make good faith efforts to comply with the law. It prohibits the state human rights department and state courts from considering or using the results of any job evaluation system in discrimination proceedings commencing before August 1, 1987. Data collected by any job evaluation study is defined as private data until July 31, 1987.

By October 1, 1985, each locality must report to the State Commissioner of Employee Relations on its plan for implementing the legislation. By January 1, 1986, the Commissioner must report to the legislature on the nature of these plans. On July 31, and August 1, 1987, respectively, the classification of job evaluation information as private data and the protection of local governments from local action expire. The Department of Employee Relations is required to provide technical assistance to local governments requesting help in this process. According to the Commissioner, many local governments have already requested such assistance.

STATE OF WASHINGTON

The State of Washington uses traditional whole job classification procedures to evaluate positions held by its classified employees. Since 1974, a point-factor evaluation system has been used in several studies to test the equity of the existing salary structure. This point-factor system and studies have been at the center of a much-publicized court case now on appeal to the Ninth Circuit Court of Appeals.

BACKGROUND

The State of Washington operates two civil service systems for its non-management personnel--one for employees in institutions of higher education and the other for employees in state agencies. As of November 1984, approximately 50,000 personnel in about 3,000 job classes were employed in these two systems. Employees are in unions, although state law does not allow them to collectively bargain for wages.

PAY EQUITY AND JOB EVALUATION
IN WASHINGTON STATE

In a November 20, 1973, letter to the Governor, the Executive Director of the state's largest employee union suggested that the state might be discriminating against women in salary setting. Shortly thereafter, the state's personnel organizations conducted a joint study of their pay systems using a point-factor evaluation system. Fourteen raters examined 46 male- and female-dominated job classes and concluded in a January 1974 report that there were indications of differences in pay between the predominantly male and female classes which "are not due solely to job worth."

In response to that report, the state contracted with the consulting firm of Norman Willis and Associates for an independent study of state government salaries. The objectives of the study, which began in April 1974, were to examine and identify salary differences between male- and female-dominated job classes considering job worth and to provide alternatives for correcting any disparities. Although the consultant was accountable for the development and conduct of the overall study, an advisory committee provided advice to the consultant at various stages of the project. The committee members were selected by the heads of the state's personnel organizations and the governor, and included state officials as well as representatives from womens' groups, unions, and state business organizations.

The state stipulated that a job class would be considered male- or female-dominated if it was composed of 70 percent or more of either sex. Of the approximately 3,000 non-management job classes, the personnel agencies and the consultants selected 59 male-dominated and 62 female-dominated classes for study. Together, these 121 classes represented over 13,000 state employees.

The consultant determined that the existing position specifications did not include sufficient and current information required for precise evaluations. About 1,600 employees in targeted classes supplied the needed additional information on their jobs by completing a position questionnaire, and about half of these respondents participated in follow-up interviews. The consultant and members of the two personnel agencies reviewed the completed questionnaires and chose two to four questionnaires to represent each class in the study.

The job information obtained through this process was provided to a 13-member job evaluation committee selected by the consultant with recommendations from the advisory committee. Committee members represented the public and private sectors, womens' groups, and unions. The evaluation committee used the Willis point-factor method to evaluate the 121 job classes.

The consultant's September 1974 report concluded that, based on the measured job content of the 121 classes evaluated, "the tendency is for women's classes to be paid less than men's classes for comparable job worth." Considering all positions, they found the average disparity to be about 20 percent; however, there were larger variances by salary system, by classification level, and by individual classification. The report also concluded that the pay disparity increased as job value increased.

State response and subsequent actions

In December 1974, the governor agreed that steps should be taken to rectify the 20 percent average wage imbalance. The State Personnel Board adopted a resolution in December 1976 supporting the correction of the disparities, and the governor requested a \$7 million budget appropriation to begin implementation of the comparable worth concept. However, a new governor took office in 1977 and eliminated the proposed appropriation from the budget request.

The legislature passed a law in 1977 requiring updates to comparable worth cost estimates, based on biennial salary surveys. Between 1977 and 1984, additional studies were done to

estimate the cost of salary adjustments, recalculate the comparable worth salary ranges based on the biennial salary surveys, and evaluate additional job classes. By 1980, 163 more job classes had been evaluated in addition to the original 121 classes, for a total of 284.

The state legislature did not fund the pay equity adjustments that the studies showed to be appropriate in 1979, 1980, or 1982. However, in 1983 the legislature enacted two pieces of legislation which committed the state to the concept of comparable worth and appropriated funds to begin implementation of the evaluation study results. The laws require (1) at least annual salary increases solely to achieve comparable worth; (2) comparable worth for the jobs of all covered employees to be fully achieved by June 30, 1993; (3) the personnel organizations to develop a plan to give an extra \$100 to employees in job classes eight or more salary ranges below (i.e., about 20 percent) what the comparable worth salary line would indicate they should be paid; and (4) the personnel organizations to conduct additional job evaluations as necessary. The legislation also appropriated \$1.5 million to begin implementation of comparable worth.

Following the adoption of this legislation, a 16-member Joint Select Committee on Comparable Worth Implementation was formed to review and formulate ways to implement comparable worth in state government and to report its findings and recommendations to the legislature. The Select Committee consisted of four members of the Senate, four members of the House, and eight members of business and labor organizations. The Committee presented its report to the state legislature in January 1985 and recommended that:

- comparable worth be fully implemented no later than June 30, 1991 (2 years ahead of the statutory schedule);
- 50 percent of the funds needed for comparable worth be appropriated in the 1985-87 biennium;
- comparable worth adjustments be shown separately from normal salary increases and through separate appropriations;
- initial comparable worth salary adjustments be made to the "average comparable worth line," but that the legislature consider increasing salaries to the "male salary line;"¹

¹The "average comparable worth line" is the pay line calculated using the job evaluation score for all jobs. The "male salary line" is calculated using the score for male-dominated jobs.

- modifications to the Willis evaluation technique be considered (particularly changes to the working conditions and accountability factors);
- evaluation team membership be representative of the workforce and that they be trained to recognize bias in the evaluation process;
- subject matter experts (for example, job incumbents) be used in each evaluation to insure accuracy; and
- workshops on comparable worth implementation and impact be offered to state employees.

At the time we completed our review, the legislature had not acted on these recommendations.

AFSCME discrimination charges

On September 16, 1981, the American Federation of State, County, and Municipal Employees (AFSCME) and other parties filed complaints with the Equal Employment Opportunity Commission (EEOC), alleging that the State of Washington discriminated against employees in female-dominated jobs in state service "by establishing and maintaining wage rates in salaries for predominately female job classifications that are less than wage rates or salaries for predominately male job classifications that require equal or less skill, effort and responsibility." The complaint, filed on behalf of nine individual employees as well as the class of employees in female-dominated jobs, cited examples of comparably-valued jobs that were unequally paid. EEOC did not complete action on these charges within the 180 days allowed by law and, on April 31, 1982, the U.S. Department of Justice issued Notices of Right to Sue to AFSCME. The union ultimately filed its suit in Federal district court on July 20, 1982, charging the state with violating state and federal civil rights laws, including title VII of the Civil Rights Act of 1964.

In AFSCME v. State of Washington, 578 F Supp. 846 (WD. Wash. 1983), the District Court for the Western District of Washington ruled that the state had violated title VII and was guilty of "direct, overt and institutionalized" discrimination against occupants of predominantly female jobs. In its decision, the Court pointed out that

- (1) the case did not require the court itself to determine "comparable worth." Rather, "comparable worth" had already been defined by the state to mean "the provision of similar salaries for positions that require or impose similar responsibilities, judgments, knowledge, skills, and working conditions."
- (2) the state had not paid female-dominated jobs their full evaluated worth as established by the state's own job evaluation studies.
- (3) the existing wage system had a disparate impact on predominantly female job classifications and the State of Washington did not produce credible evidence showing a legitimate, overriding business justification for the practice.
- (4) the state's implementation and perpetuation of the existing wage system constituted intentional discrimination against employees in predominantly female job classifications.

Based on the state's failure to pay in accordance with its own job evaluations and other evidence, the district court found that the state unlawfully discriminated in compensation on the basis of sex. The court ordered the state to (1) cease its discriminatory compensation practices; (2) pay the affected employees amounts of compensation determined under the state's "'comparable worth' plan as adopted in May 1983"; and (3) conduct additional class evaluations. Additionally, the court ordered the state to pay backpay and fringe benefits to the affected employees. The state opposed the remedies partially because it said it could not afford the costs of compliance. The court rejected this objection, noting that the state had a budget surplus during the period it was aware of the wage disparity and that title VII does not have a cost-justification defense.

The state appealed the ruling to the Ninth Circuit Court of Appeals, and the hearing was held in April 1985. At the time we completed our review, no decision had been reached. As a temporary measure, the court had ordered a stay in March 1984 in which the state is not required to begin paying any of the wage increases or other awards unless the district court's decision is affirmed.

CITY OF SAN JOSE, CALIFORNIA

In 1981, a union representing employees in the City of San Jose, California, raised comparable worth as an issue during collective bargaining. Staleminated negotiations resulted in a 9-day strike over those issues. Settlement of the strike provided for (1) general pay increases for all classes and (2) comparable worth salary adjustments of \$1.4 million for undercompensated female-dominated jobs. Comparable worth adjustments, including the \$1.4 million strike settlement, are expected to total \$6.8 million by the end of fiscal year 1986.

BACKGROUND

San Jose's total work force consists of about 4,500 employees, of which about 2,000 are represented by the American Federation of State, County and Municipal Employees (AFSCME). In 1979, the city began using the Hay Associates job evaluation method for its 366 management employees. The intent of this effort was to create internal equity within the management job classifications and to design a new pay structure for management employees.

That same year AFSCME requested that the city apply the Hay job evaluation system to non-management classes. City officials believed that the Hay methodology was inappropriate for these classes and that collective bargaining was a more appropriate method of determining job worth. However, the City Council agreed to the union's request, with the stipulation that the city not be obligated to set pay based on the study's results.

To perform the job evaluations, Hay trained a committee of city employees in the Hay evaluation technique. This committee was comprised of nine non-management employees, selected from various departments and AFSCME, and one management employee. The committee evaluated the city's non-management jobs in three steps. First, the committee reviewed job descriptions, the position descriptions completed by the incumbents, organizational charts, and other related documents to familiarize themselves with the jobs being evaluated. Each committee member then independently assigned points to the jobs on each of the Hay factors using the Hay Guide-Chart Profile Method. Finally, the committee resolved differences among the individual ratings to achieve group consensus.

After the non-management classes were evaluated, a scattergram was plotted to illustrate the relationship between the city's 1980 pay rates and the job evaluation scores. Then, a

general pay line was developed through regression analysis that indicated target salaries for those classes. Over one-third of all classes were at least 15 percent above or below the general pay line.

Using the results of this study, San Jose determined that female-dominated job classes were being paid an average of 2 to 10 percent less than the pay line indicated they should be paid; male-dominated classes were being paid an average of 8 to 15 percent higher than their target salaries. In total, 46 classes were paid significantly below the pay line, of which 30 were female-dominated. These 30 classes represented 45 percent of all female-dominated classes. Seven of the 46 classes were male-dominated, representing 6 percent of all male-dominated classes. Nine of the classes were mixed male and female.

Although AFSCME and city management agreed that a wage gap between the sexes existed in San Jose, they disagreed on the cause of this disparity. The union believed the disparities were caused by sex discrimination, whereas city management suggested that the disparities could also be caused by other factors. Management said that the Hay study and the accompanying analyses did not consider differences such as productivity-related differences based on sex, and the personal taste of men and women for certain types of work.

ACTIONS TAKEN BASED ON THE RESULTS OF THE STUDY

In negotiations beginning in May 1981, the union requested that the salaries of all classes below the general pay line be raised to this line in accordance with the results of the Hay job evaluation study, at a cost of \$3.5 million. The city countered with a proposal to raise all female-dominated classes to within 15 percent of the line, which they regarded as the study's margin of error. In June 1981, AFSCME filed a comparable worth complaint against San Jose with the Equal Employment Opportunity Commission and negotiations stalemated in late June.

On July 5, 1981, about 350-400 of the 2,000 represented city employees participated in a strike against the city. The union demanded that the pay for all classes below the general pay line be moved up to this line over a period of 4 years. In response, the city proposed that the pay for all classes below the line be moved up to within 10 percent of the pay line.

The strike was settled on July 14, 1981, when AFSCME and the city of San Jose signed an agreement authorizing general salary increases for all employees of 7.5 percent for the first year and 8 percent for the second year. This agreement also made \$1.4 million available over 2 years for additional increases for female-dominated classes more than 10 percent below the pay line. All female-dominated classes below this level were to receive 5 to 15 percent pay adjustments over the 2-year period, with the amount of the increase determined by the classes' proximity to the 10-percent level. Those classes closest to the 10 percent level would get an increase of at least 5 percent over the 2 years, whereas those classes which were farthest from the level would receive increases of up to 15 percent. No adjustments were given to male-dominated classes below the pay line.

The city of San Jose gradually made comparable worth adjustments for the above classes. Adjustments were made in August 1982, July 1983, January 1984, and July 1984. Including the original \$1.4 million agreement for the 1982-83 bargaining period, these adjustments totaled \$3.1 million. The final adjustments are scheduled to conclude in June 1986. City officials estimate that by the end of fiscal year 1986, comparable worth adjustments will total \$6.8 million.

About 93 percent of the comparable worth dollars have been paid to the clerical, librarian, fiscal, and recreational classes. The health and general administrative classes have received the largest pay increases. In all, 78 different classes have received adjustments; 26 of these classes have received increases averaging \$100 or more bi-weekly. As of May 1984, San Jose's salary rates averaged 2 to 21 percent higher than other similar jurisdictions in that area of California.

Although comparable worth became a collective bargaining issue in San Jose, the city continues to have no formal program or policy to achieve comparable worth in their non-management workforce nor does it routinely use job evaluation for positions held by those employees. Job evaluation is not used for non-management classes, as market rate comparisons and the collective bargaining process remain the mechanisms for adjusting pay. The 1980 Hay study was a one-time effort used for collective bargaining purposes.

AMERICAN TELEPHONE AND TELEGRAPH COMPANY

American Telephone and Telegraph Company (AT&T) and the three unions representing most non-managerial employees in the company jointly developed and pretested a point-factor job evaluation system between 1980 and 1983. However, the system has not been used in paysetting because of disagreements between AT&T and one of the unions over implementation, and because of problems associated with the company's divestiture. Since mid-1983, the unions, AT&T, and each of the 22 divested Bell operating companies have been considering adoption of the jointly developed evaluation system.

BACKGROUND

As of November 1984, AT&T and the Bell operating companies employed about 900,000 persons in both management and non-management positions. Most non-managerial employees are represented by one of three unions: the Communications Workers of America (CWA), the International Brotherhood of Electrical Workers (IBEW), and the Telecommunications International Union (TIU). The largest of these unions is CWA, representing 71 percent of non-management workers. IBEW is the next largest (representing 23 percent) and TIU is the smallest (6 percent). Every 3 years the companies and the unions bargain on national issues such as pay and fringe benefits, with local issues negotiated by 26 local bargaining units. The next bargaining session is scheduled for 1986.

The organization of the company changed markedly on January 1, 1984, when AT&T was split into eight different companies under an agreement between AT&T and the U.S. Department of Justice. According to AT&T officials, the organization of the company is still changing due to the continued effects of divestiture and its expansion into new markets.

AT&T has two pay systems for its employees, one for managers and one for non-managers. The managerial pay plan is based on a company developed point-factor job evaluation plan in use since the early 1960s. AT&T plans to adopt the Hay Associates point-factor job evaluation plan for its managerial employees in the near future. Pay for nonmanagerial employees is currently set through the collective bargaining process without using job evaluation.

DEVELOPMENT OF JOB EVALUATION AT AT&T

Several factors prompted the development of a new job evaluation system for non-management employees by the company and the unions. One factor was the rapid pace of technological change in the 1970s, which resulted in new jobs being created and old jobs being redefined. AT&T management believed they needed a systematic way to assign wages to those new or altered jobs to ensure proper internal pay alignment. The unions were similarly concerned that the job skills employees developed as a result of these changes were not being recognized and accounted for by the company's existing compensation procedures. A second reason was the lack of a uniform compensation policy at AT&T. At that time, the company had no accurate job descriptions and no systematic way to determine the relative value of its jobs.¹ A third impetus for the development of a job evaluation system was the company's need for a legally defensible way to make pay distinctions among jobs. AT&T management believed that job evaluation could reduce the potential for legal challenge to their compensation system by providing empirical evidence of differences in job characteristics. The unions were also concerned about the extent of sex segregation of jobs and the wage gap between men and women.

In the 1980 bargaining session it was agreed that Occupational Job Evaluation (OJE) committees would be established to research and develop a job evaluation plan for non-management employees. Separate committees were established for the employee groups represented by each of the three unions, each with three AT&T and three union representatives. The decision to work together was consistent with earlier collaborative efforts and both the unions and management believed a jointly developed evaluation system would be more readily accepted than a company developed plan.

As a first step, the OJE committees established a statement of objectives which outlined the general goals of the system to be developed. The committee members agreed that the plan would, among other things: (1) apply to all bargaining unit jobs and measure all jobs using the same factors to achieve internal comparability; (2) account for all causes of fatigue on the job, technical and environmental changes, and company and union values; and (3) allow reevaluation or updating of evaluations as needed, as well as appeals by employees. The committees were attentive to comparable worth concerns and included several

¹A 1975 study by CWA found a lack of uniformity in job titles, an excessive number of job titles, and a narrow, inefficient clustering of pay rates in some jobs.

aspects in the plan to avoid the undervaluation of jobs held predominantly by women. Several general steps were to be followed, including job documentation, development of compensation factors, and development of a scoring system to evaluate jobs.

Accurate job documentation was considered crucial to the evaluation effort by both the unions and the company. Using the task analysis approach, 14 benchmark job titles were selected by the committees to test two different analysis approaches. A combination of the two approaches was adopted in order to capture both specific tasks as well as those aspects of the work that could make jobs more stressful and/or require interpersonal skills.

Detailed job descriptions were developed for 25 jobs during the developmental process, with a typical job description 18 to 30 pages in length. An explicit effort was made to use job analysis committees mixed by race, sex, and occupation and to avoid terms in the descriptions which could cause jobs held predominantly by women to be undervalued. In the process, the committees developed specifications for job descriptions, which served as quality controls to ensure that job descriptions would be standardized and would reflect actual differences in job content.

While the job documentation work was underway, the OJE committees began developing a list of compensable factors to be used in the job evaluations. It was agreed that one set of factors would be used for all nonmanagerial jobs to ensure comparability. The AT&T-CWA joint committee developed a list of 17 factors, while the AT&T-IBEW and AT&T-TIU committees each produced lists with 14 factors. (AT&T considered the three additional factors in the CWA plan to be smaller dimensions of some of the IBEW and TIU factors, and thus not major differences.) The factors fell into seven broad skills: communication, interpersonal, problem solving, safety, mathematics, job coping, and specialty. Each factor was defined in general terms and at each of either four or five levels of work within each factor. Some of the factors were measured in two different ways to avoid contributing to undervaluing certain jobs. (For example, physical effort-based factors were measured in terms of both physical and mental fatigue.) Each job was to be evaluated on each factor, with each factor receiving a score of from zero to 80 points.

In November 1981, the CWA-AT&T OJE committee conducted a limited 2-week pretest of the proposed factors and evaluation process. A joint labor-management group mixed both demographically and occupationally was brought together by the OJE

committee to test the draft system and remove any obvious flaws. They concluded that a number of changes were needed, including more factor-relevant job descriptions, clearer factor definitions, and a streamlined evaluation process. They also recommended training in joint problem solving and the use of line supervisors to educate the evaluation committee about the jobs being evaluated. Similar results were obtained in pretests with IBEW (December 1981) and TIU (early 1982).

A much more comprehensive pilot study was conducted at an AT&T facility from May 1982 to May 1983. The CWA-AT&T OJE committee selected 25 benchmark job titles for study; jobs which were (1) highly populated, (2) representative of the range of jobs in the company's pay structure, and (3) believed to be stable in their content. A joint labor-management evaluation team was selected, mixed by race, sex, age, occupation, and geography, and used the new job descriptions to evaluate the 25 jobs under the newly developed system. Analysis of the results of the pilot study by the OJE evaluation committee indicated that the evaluation scores were generally in line with the existing pay structures.

Two other pilot studies were conducted in the first half of 1983 to test whether changing the nature of the evaluation committees would alter conclusions regarding the worth of the jobs. The first study was conducted using a management group of raters; the second was a joint AT&T-IBEW-TIU effort. The results indicated a high correlation between the evaluation scores and existing wages.

Although AT&T and the unions agreed on most of the major aspects of the newly developed job evaluation system, disagreements between AT&T and CWA over how the system would be implemented prevented the plan from being put into practice on a national level. In mid-1983, the implementation issue became part of that year's contract negotiations. Faced with the uncertainties of divestiture, which was due to occur January 1, 1984, the negotiators agreed that the unions and each of the 22 operating telephone companies, AT&T Communications, and AT&T Information Systems would form their own OJE committees and make a good faith effort to implement the system developed by management and the unions. However, since divestiture the individual companies have been autonomous units, and are free to develop a completely different evaluation system or none at all. As of November 1984, the parties were still studying the proposed evaluation system; none of the operating companies had begun implementation, although several had established joint committees and at least three operating companies had started gathering the information needed to develop wage translation procedures in preparation for 1986 bargaining. Both Bell

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Communications Research and union representatives have begun instructing their counterparts in the operating companies on the relevant attributes of the jointly developed system.

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